

REMARKS

The office action of November 20, 2007, has been carefully considered.

It is noted that claim 4 is objected to under 37 C.F.R. 1.75(c).

Claims 3, 5, 6 and 10-12 are rejected under 35 U.S.C. 112, second paragraph.

Claims 1, 3-5 and 7 are rejected under 35 U.S.C. 103(a) over the patent to Yu et al. in view of the patent to Manthey et al. '344.

Claim 2 is rejected under 35 U.S.C. 103(a) over Yu et al. and Manthey et al. '344, and further in view of the patent to Ujiie.

Claim 6 is rejected under 35 U.S.C. 103(a) over Yu et al. and Manthey et al. '344, and further in view of the patent to Coleman.

Claim 8 is rejected under 35 U.S.C. 103(a) over Yu et al. and Manthey et al. '344, and further in view of the patent to Abukawa

et al.

Claims 9-12 are rejected under 35 U.S.C. 103(a) over Yu et al. and Manthey et al. '344, and further in view of the patent to Manthey et al. '243.

In view of the Examiner's objection to and rejections of the claims, applicant has amended claims 1, 3-7 and 9.

With the change to claim 4 it is respectfully submitted that the objection to this claim under 37 C.F.R. 1.75(c) is overcome and should be withdrawn.

It is respectfully submitted that the claims now on file particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant has amended the claims to address the instances of indefiniteness pointed out by the Examiner.

In view of these considerations it is respectfully submitted that the rejection of claims 3, 5, 6 and 10-12 under 35 U.S.C. 112, second paragraph is overcome and should be withdrawn.

It is respectfully submitted that the claims presently on file differ essentially and in an unobvious, highly advantageous manner from the methods and constructions disclosed in the references.

Turning now to the references and particularly to the patent to Yu et al., it can be seen that this patent discloses the spray quenching of metal with liquid coolant containing dissolved gas.

The patent to Manthey et al. '344 discloses a system for cooling large, hot metal slabs.

The Examiner combined these references in determining that claims 1, 3-5 and 7 would be unpatentable over such a combination. Applicant respectfully submits that neither of these references, nor their combination, teach the presently claimed invention. The combination of references does not teach spraying water laterally against the sides of slabs that have been stood on edge. Yu et al. make no mention that the spray heads 60 should be arranged to spray water laterally against the sides of the slab, the only teaching is for a general spraying onto the part to be quenched. Also, the vertical arrangement of Manthey et al. gives no indication that it would be possible to laterally spray the sides

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of the slab. Manthey et al. only teach a construction suited for inserting the slabs into a pool of water. Thus, the combination of references does not teach a method for cooling slabs, in which the slabs are stood on edge and then cooling water is sprayed laterally against the sides of the slabs, as in the presently claimed invention.

In view of these considerations it is respectfully submitted that the rejection of claims 1, 3-5 and 7 under 35 U.S.C. 103(a) over a combination of the above-discussed references is overcome and should be withdrawn.

As for the remaining references, they have also been considered. Applicant submits that none of these references adds anything to the teachings of the primary references so as to suggest the presently claimed invention as discussed above.

In view of these considerations it is respectfully submitted that the rejections of claims 2, 6 and 9-12 under 35 U.S.C. 103(a) are overcome and should be withdrawn.

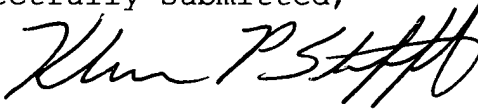
Reconsideration and allowance of the present application are respectfully requested.

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Any additional fees or charges required at this time in connection with this application may be charged to Patent and Trademark Office Deposit Account No. 11-1835.

Respectfully submitted,

By



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**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, PO Box 1450 Alexandria, VA 22313-1450, on February 19, 2008.

By:

  
Klaus P. Stoffel

Date: February 19, 2008